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Linux 4.13 Intel

Intel Core i7-7700K testing with a MSI Z270-A PRO (MS-7A71) v1.0 and Intel HD 630 3072MB on Ubuntu 17.04 via the Phoronix Test Suite.

Automated Executive Summary

Linux 4.13-rc1 had the most wins, coming in first place for 70% of the tests.

Based on the geometric mean of all complete results, the fastest (Linux 4.11.0) was 1.016x the speed of the slowest (Linux 4.13-rc1). Linux 4.12.0 was 0.998x the speed of Linux 4.11.0 and Linux 4.13-rc1 was 0.986x the speed of Linux 4.12.0.

Test Systems:

Linux 4.11.0

Processor: Intel Core i7-7700K @ 4.50GHz (8 Cores), Motherboard: MSI Z270-A PRO (MS-7A71) v1.0, Chipset: Intel Device 591f + Z270, Memory: 16384MB, Disk: 525GB Crucial_CT525MX3 + 128GB THNSN5128GPU7 TOSHIBA,

Graphics: Intel HD 630 3072MB (1150MHz), Audio: Realtek ALC892, Monitor: Acer B286HK, Network: Realtek RTL8111/8168/8411

OS: Ubuntu 17.04, Kernel: 4.11.0-041100-generic (x86_64), Desktop: Unity 7.5.0, Display Server: X Server 1.19.3, Display Driver: modesetting 1.19.3, OpenGL: 4.5 Mesa 17.2.0-devel- padoka PPA, Vulkan: 1.0.42, Compiler: GCC 6.3.0 20170406, File-System: ext4, Screen Resolution: 1920x1080

Processor Notes: Scaling Governor: intel_pstate powersave

Linux 4.12.0

Processor: Intel Core i7-7700K @ 4.50GHz (8 Cores), Motherboard: MSI Z270-A PRO (MS-7A71) v1.0, Chipset: Intel Device 591f + Z270, Memory: 16384MB, Disk: 525GB Crucial_CT525MX3 + 128GB THNSN5128GPU7 TOSHIBA, Graphics: Intel HD 630 3072MB (1150MHz), Audio: Realtek ALC892, Monitor: Acer B286HK, Network: Realtek RTL8111/8168/8411

OS: Ubuntu 17.04, Kernel: 4.12.0-041200-generic (x86_64), Desktop: Unity 7.5.0, Display Server: X Server 1.19.3, Display Driver: modesetting 1.19.3, OpenGL: 4.5 Mesa 17.2.0-devel- padoka PPA, Vulkan: 1.0.42, Compiler: GCC 6.3.0 20170406, File-System: ext4, Screen Resolution: 1920x1080

Processor Notes: Scaling Governor: intel_pstate powersave

Linux 4.13-rc1

Processor: Intel Core i7-7700K @ 4.50GHz (8 Cores), Motherboard: MSI Z270-A PRO (MS-7A71) v1.0, Chipset: Intel Device 591f + Z270, Memory: 16384MB, Disk: 525GB Crucial_CT525MX3 + 128GB THNSN5128GPU7 TOSHIBA, Graphics: Intel HD 630 3072MB (1150MHz), Audio: Realtek ALC892, Monitor: Acer B286HK, Network: Realtek RTL8111/8168/8411

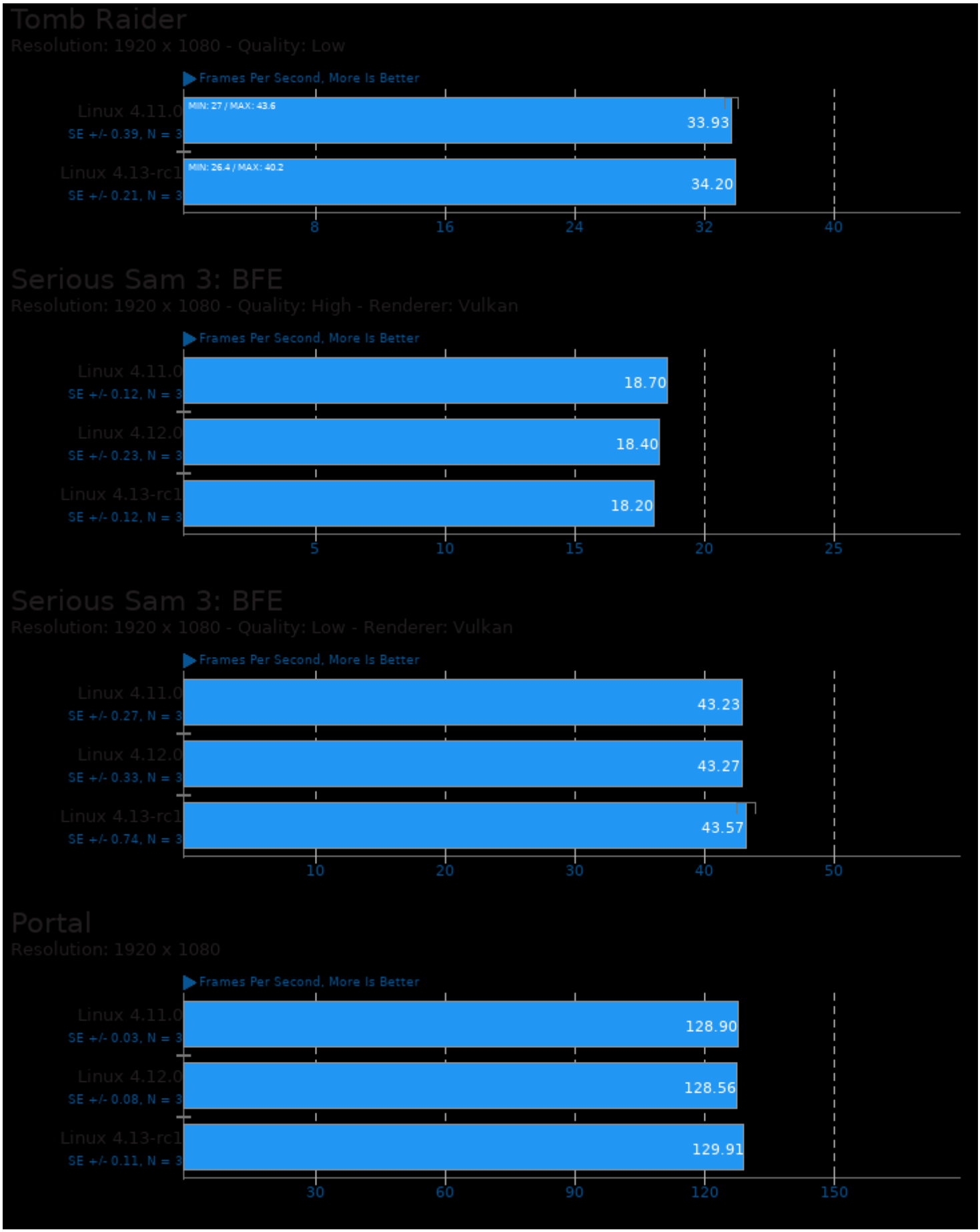
OS: Ubuntu 17.04, Kernel: 4.13.0-041300rc1-generic (x86_64) 20170715, Desktop: Unity 7.5.0, Display Server: X Server 1.19.3, Display Driver: modesetting 1.19.3, OpenGL: 4.5 Mesa 17.2.0-devel- padoka PPA, Vulkan: 1.0.42, Compiler: GCC 6.3.0 20170406, File-System: ext4, Screen Resolution: 1920x1080

Processor Notes: Scaling Governor: intel_pstate powersave

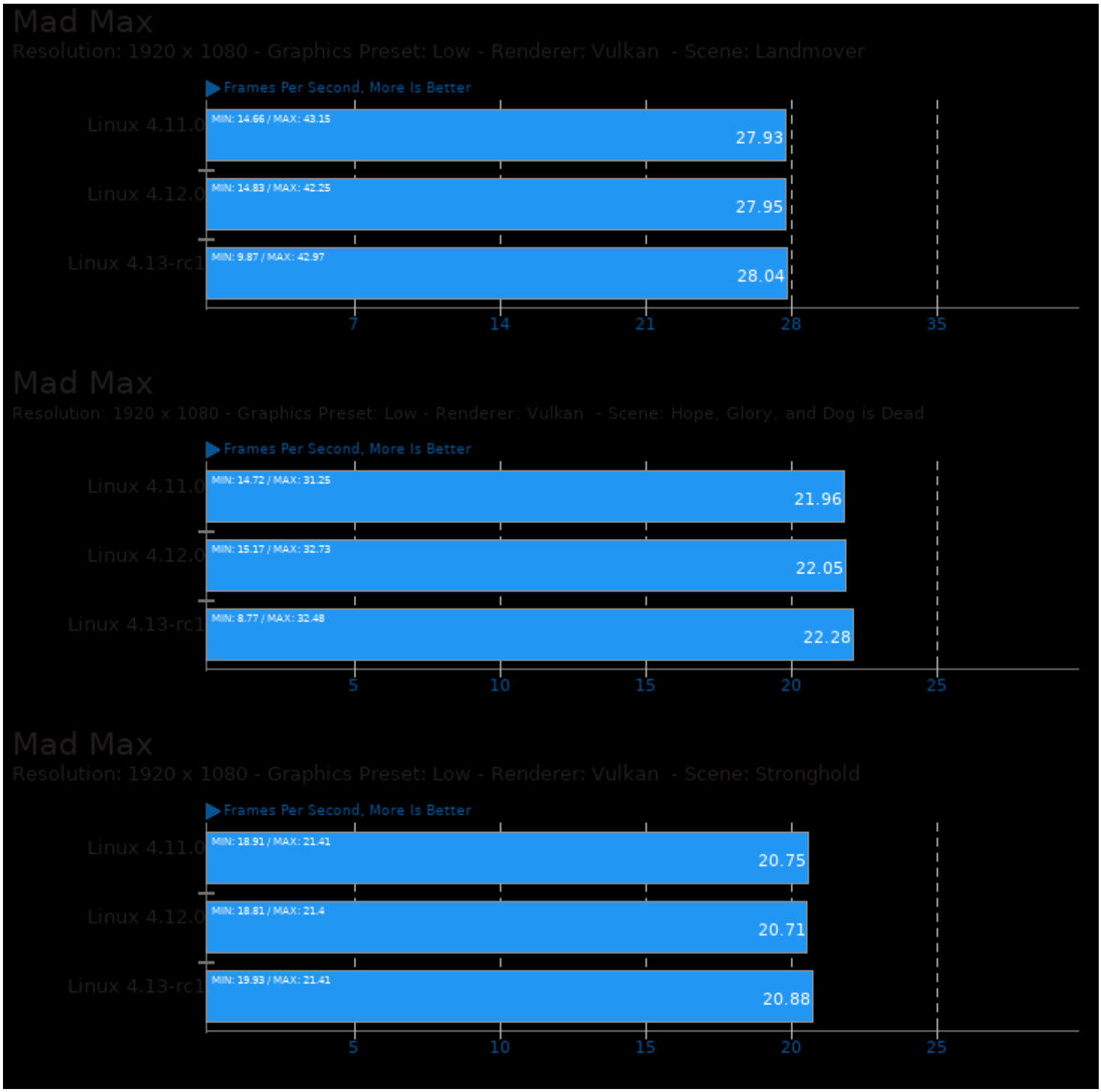
	Linux 4.11.0	Linux 4.12.0	Linux 4.13-rc1
Tomb Raider - 1920 x 1080 - Low (FPS)	**33.93**		**34.20**
Normalized	99.21%		100%
Standard Deviation	2%		1.1%
Serious Sam 3: BFE - 1920 x 1080 - High - Vulkan (FPS)	**18.70**	18.40	**18.20**
Normalized	100%	98.4%	97.33%
Standard Deviation	1.1%	2.2%	1.1%
Serious Sam 3: BFE - 1920 x 1080 - Low - Vulkan (FPS)	**43.23**	43.27	**43.57**
Normalized	99.22%	99.31%	100%
Standard Deviation	1.1%	1.3%	3%

Linux 4.13 Intel

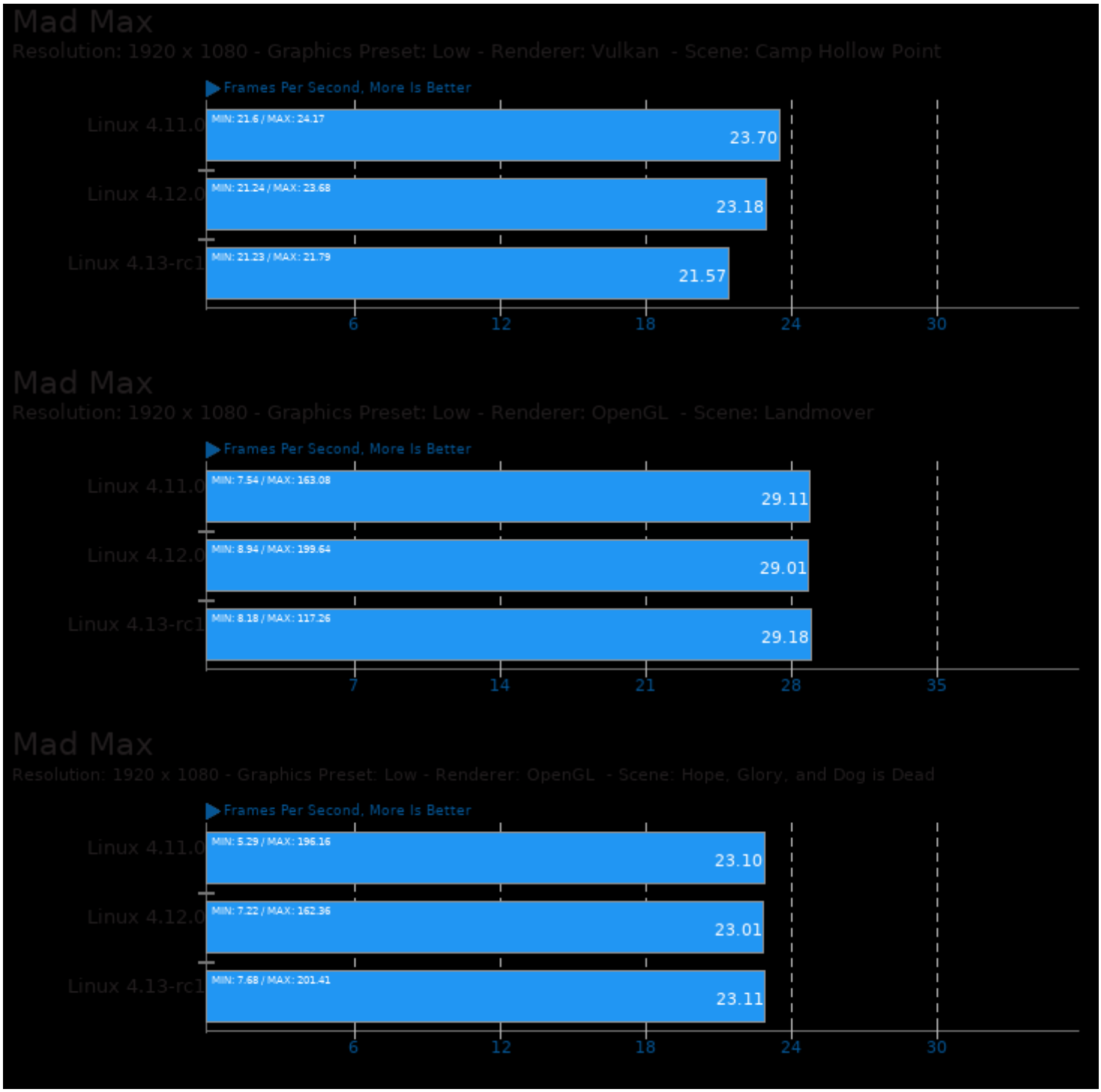
Portal - 1920 x 1080 (FPS)	128.90	**128.56**	**129.91**
Normalized	99.22%	98.96%	100%
Standard Deviation	0%	0.1%	0.1%
Mad Max - 1920 x 1080 - Low - Vulkan - Landmover (FPS)	**27.93**	27.95	**28.04**
Normalized	99.61%	99.68%	100%
Mad Max - 1920 x 1080 - Low - Vulkan - H.G.a.D.i.D (FPS)	**21.96**	22.05	**22.28**
Normalized	98.56%	98.97%	100%
Mad Max - 1920 x 1080 - Low - Vulkan - Stronghold (FPS)	20.75	**20.71**	**20.88**
Normalized	99.38%	99.19%	100%
Mad Max - 1920 x 1080 - Low - Vulkan - Camp Hollow Point (FPS)	**23.70**	23.18	**21.57**
Normalized	100%	97.81%	91.01%
Mad Max - 1920 x 1080 - Low - OpenGL - Landmover (FPS)	29.11	**29.01**	**29.18**
Normalized	99.76%	99.42%	100%
Mad Max - 1920 x 1080 - Low - OpenGL - H.G.a.D.i.D (FPS)	23.10	**23.01**	**23.11**
Normalized	99.96%	99.57%	100%
Mad Max - 1920 x 1080 - Low - OpenGL - Stronghold (FPS)	20.63	**20.50**	**20.69**
Normalized	99.71%	99.08%	100%
Mad Max - 1920 x 1080 - Low - OpenGL - Camp Hollow Point (FPS)	25.96	**26.30**	**23.89**
Normalized	98.71%	100%	90.84%
Dota 2 - 1920 x 1080 - Vulkan (FPS)	**17.93**	17.97	**18.10**
Normalized	99.06%	99.28%	100%
Standard Deviation	0.3%	0.3%	0%
Dota 2 - 1920 x 1080 - OpenGL (FPS)	**19.97**	20.03	**20.13**
Normalized	99.21%	99.5%	100%
Standard Deviation	0.3%	0.3%	0.3%
Counter-Strike: Global Offensive - 1920 x 1080 (FPS)	**41.65**	**41.65**	**41.97**
Normalized	99.24%	99.24%	100%
Standard Deviation	0.1%	0.1%	0.1%
BioShock Infinite - 1920 x 1080 - Low (FPS)	**39.47**	39.72	**40.17**
Normalized	98.26%	98.88%	100%
Standard Deviation	0.1%	0.2%	0.3%


Tomb Raider
Resolution: 1920 x 1080 - Quality: Low
Frames Per Second, More Is Better
Linux 4.11.0
SE +/- 0.39, N = 3
MIN: 27 / MAX: 43.6
33.93
Linux 4.13-rc1
SE +/- 0.21, N = 3
MIN: 26.4 / MAX: 40.2
34.20
8
16
24
32
40
Serious Sam 3: BFE
Resolution: 1920 x 1080 - Quality: High - Renderer: Vulkan
Frames Per Second, More Is Better
Linux 4.11.0
SE +/- 0.12, N = 3
18.70
Linux 4.12.0
SE +/- 0.23, N = 3
18.40
Linux 4.13-rc1
SE +/- 0.12, N = 3
18.20
5
10
15
20
25
Serious Sam 3: BFE
Resolution: 1920 x 1080 - Quality: Low - Renderer: Vulkan
Frames Per Second, More Is Better
Linux 4.11.0
SE +/- 0.27, N = 3
43.23
Linux 4.12.0
SE +/- 0.33, N = 3
43.27
Linux 4.13-rc1
SE +/- 0.74, N = 3
43.57
10
20
30
40
50
Portal
Resolution: 1920 x 1080
Frames Per Second, More Is Better
Linux 4.11.0
SE +/- 0.03, N = 3
128.90
Linux 4.12.0
SE +/- 0.08, N = 3
128.56
Linux 4.13-rc1
SE +/- 0.11, N = 3
129.91
30
60
90
120
150

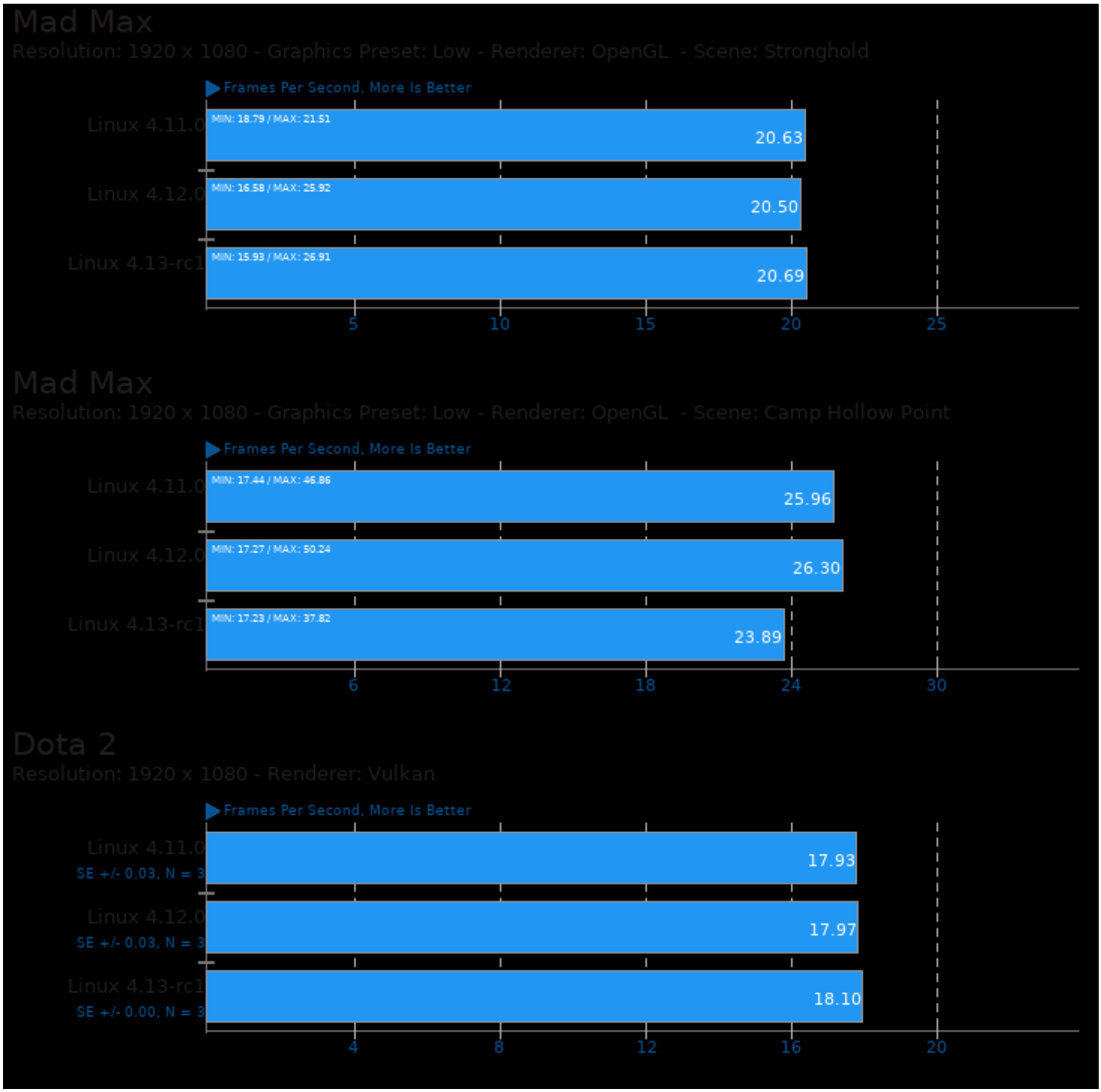
Linux 4.13 Intel

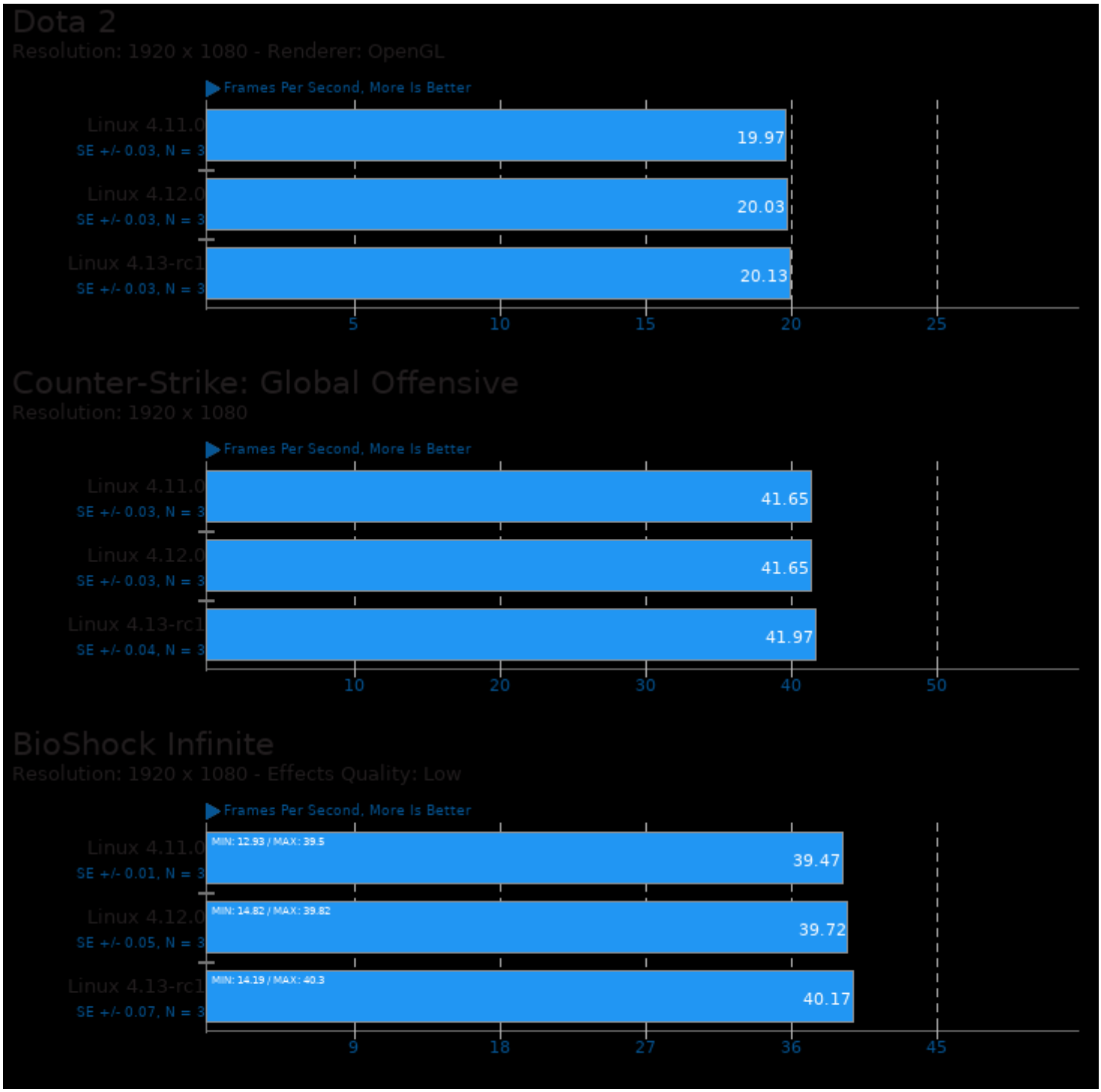


Linux 4.13 Intel



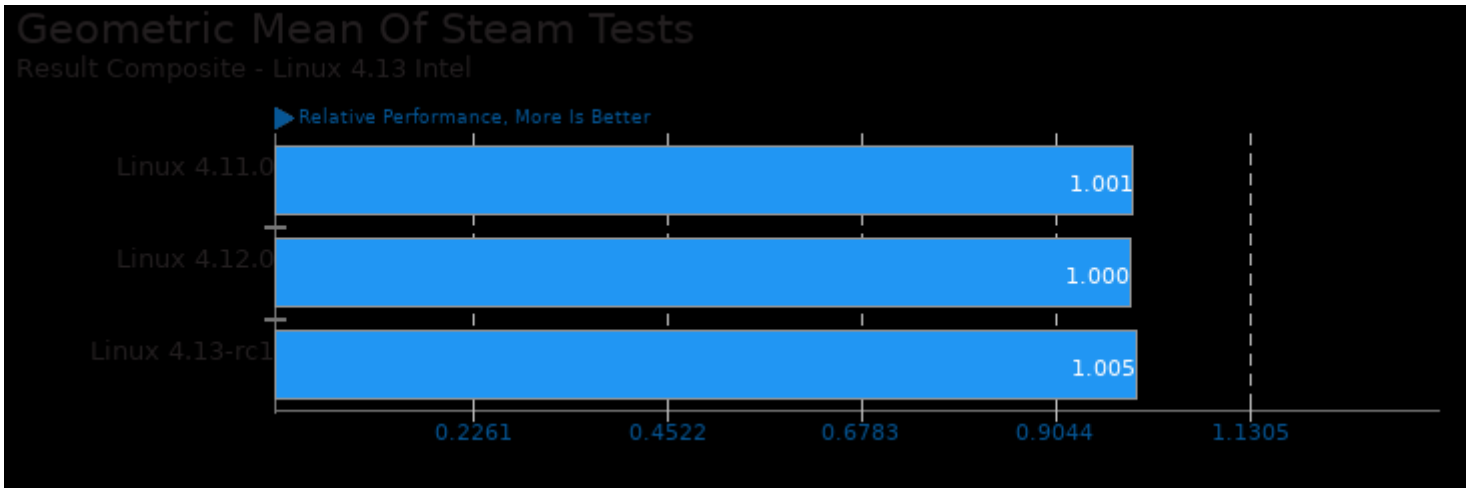
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Dota 2
Resolution: 1920 x 1080 - Renderer: OpenGL
Frames Per Second, More Is Better
Linux 4.11.0
SE +/- 0.03, N = 3
19.97
Linux 4.12.0
SE +/- 0.03, N = 3
20.03
Linux 4.13-rc1
SE +/- 0.03, N = 3
20.13
5
10
15
20
25
Counter-Strike: Global Offensive
Resolution: 1920 x 1080
Frames Per Second, More Is Better
Linux 4.11.0
SE +/- 0.03, N = 3
41.65
Linux 4.12.0
SE +/- 0.03, N = 3
41.65
Linux 4.13-rc1
SE +/- 0.04, N = 3
41.97
10
20
30
40
50
BioShock Infinite
Resolution: 1920 x 1080 - Effects Quality: Low
Frames Per Second, More Is Better
Linux 4.11.0
SE +/- 0.01, N = 3
MIN: 12.93 / MAX: 39.5
39.47
Linux 4.12.0
SE +/- 0.05, N = 3
MIN: 14.82 / MAX: 39.82
39.72
Linux 4.13-rc1
SE +/- 0.07, N = 3
MIN: 14.19 / MAX: 40.3
40.17
9
18
27
36
45

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These geometric means are based upon test groupings / test suites for this result file.



Geometric mean based upon tests: pts/bioshock-infinite, pts/csgo, pts/dota2, pts/portal, pts/ss3bfe and pts/tomb-raider

This file was automatically generated via the Phoronix Test Suite benchmarking software on Thursday, 28 March 2024 16:00.